

**IN THE UNITED STATES  
PATENT AND TRADEMARK OFFICE**



**PATENT APPLICATION**

**Inventor(s):** Adrian S. Matthews

**Docket No.:** 112914CIP

**Application No.:**

**Filing Date:**

**Examiner Name:**

**Group Art Unit:**

**Title:** Method and Apparatus for Transmitting High Speed Data by Spectral Decomposition of the Signaling Space

**THE COMMISSIONER FOR PATENTS  
WASHINGTON, D.C. 20231**

**SIR:**

**INFORMATION DISCLOSURE STATEMENT**

Pursuant to 37 C.F.R. § 1.56, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08A. Unless otherwise indicated herein, one copy of each reference is attached. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom. In accordance with 37 C. F. R. § 1.97(h), the filing of this Information Disclosure Statement shall not be construed to be an admission that the information cited in the statement is, or is considered to be, material to patentability as defined in §1.56(b).

- ☒ 1. This information disclosure statement is being filed within three months of the filing date of a national application other than a continued prosecution application under §1.53(d); within three months of the date of the entry of the national stage as set forth in §1.491 in an international application; before the mailing of a first Office action on the merits; or before the mailing of a first Office action after the filing of a request for continued examination under §1.114. No certification or fee is required. (37 C.F.R. § 1.97(b)).
- ☐ 2. This Information Disclosure Statement is being filed more than three months after the filing date of a national application other than a continued prosecution application under § 1.53(d), more than three months after the date of the entry of the national stage as set forth in §1.491 in an international application, after the mailing date of a first Office action on the merits, or after the mailing of a first Office action after the filing of a request for continued examination under §1.114, but before the mailing date of any of a Final action under §1.113, a Notice of Allowance under §1.311 or an action that otherwise closes prosecution in the application. (37 C.F.R. § 1.97(c)).
- ☐ a. I hereby certify that each item of information contained in this information disclosure statement was first cited in any communication from a foreign patent office in a counterpart

foreign application not more than three months prior to the filing of this information disclosure statement. (37 C.F.R. § 1.97 (e)(1)).

☐ b. I hereby certify that no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application and to my knowledge after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in § 1.56(c) more than three months prior to the filing of this information disclosure statement. (37 C.F.R. § 1.97 (e)(2)).

☐ c. Please debit Deposit Account No. 01-2745 in the amount of \$180.00 to cover the fee under 37 C.F.R. § 1.17(p) and to ensure consideration of the disclosed information.

☐ 3. This information disclosure statement is being filed after the mailing date of any of a Final action under § 1.113, a Notice of Allowance under § 1.311, or an action which otherwise closes prosecution, whichever occurs first, but on or before payment of the Issue Fee. (37 C.F.R. § 1.97(d)).

☐ a. I hereby certify that each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this information disclosure statement. (37 C.F.R. § 1.97(e)(1)).

☐ b. I hereby certify that no item of information in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to my knowledge after making reasonable inquiry, was known to any individual designated in § 1.56(c) more than three months prior to the filing of this information disclosure statement. (37 C.F.R. § 1.97(e)(2)).

☐ c. Please debit Deposit Account No. 01-2745 in the amount of \$180.00 to cover the fee under 37 C.F.R. § 1.17(p) and ensure consideration of the disclosed information.

Respectfully,  
Adrian S. Matthews

Date: AUG 16, 2001

AT&T CORP.  
P.O. Box 4110  
Middletown, New Jersey 07748-4110

By: Alfred G. Steinmetz

Alfred G. Steinmetz, Attorney
Reg. No.: 22971
T: 908-221-5462
F: 732-368-6932

(use as many sheets as (necessary))

Sheet	1	of	2
-------	---	----	---

**Complete if Known**

Application Number

Filing Date

**First Named Inventor**

Adrian S. Matthews

### Group Art Unit

**Examiner Name**

Attorney Docket Number	112914CIP
------------------------	-----------

JC997 U.S. PRO  
09/931782

Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figure Appears
		Number	Kind Code <sup>2</sup> (if known)			
	A1	4679227		Hughes-Hartogs	7/7/87	
	A2	4731816		Hughes-Hartogs	3/15/88	
	A3	4833706		Hughes-Hartogs	5/23/89	

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figure Appears	T*
		Office*	Number (if known)	Kind Code <sup>2</sup>				
								<input type="checkbox"/>
								<input type="checkbox"/>
								<input type="checkbox"/>
Examiner Signature						Date Considered		

<sup>1</sup>Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, D.C. 20231

* * * Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as (necessary))				<b>Complete if Known</b>	
				Application Number	
				Filing Date	
				First Named Inventor	
				Group Art Unit	
				Examiner Name	
Sheet	2	of	2	Attorney Docket Number	112914CIP

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. *	Include name of the author (in CAPITAL LETTERS), title of the article(when appropriate), title of the item(book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	C1	IRVING KALET, "The Multitone Channel", <u>IEEE Transactions on Communications</u> , Vol. 37, No. 2, February 1989, pp. 119-124	<input type="checkbox"/>
	C2	"Practical Generation of Spectrally Efficient Pulses", <u>ICCC '85</u> , June 1985, pp.18.2.1-18.2.5	<input type="checkbox"/>
	C3	"A 19.2 Kbps Voiceband Data Modem Based on Orthogonal Multiplexed QAM Techniques", <u>ICC '85</u> , June 1985, pp.21.1.1-21.1.5.	<input type="checkbox"/>
	C4	"Multicarrier Modulation for Data Transmission: An Idea Whose Time Has Come", J.A.C.Biknghan, <u>IEEE Comm.</u> May 1990, pp.5-14.	<input type="checkbox"/>